OFFICE OF PUBLIC INSTRUCTION

PO BOX 202501
HELENA MT 59620-2501
www.opi.mt.gov
(406) 444-3095
(888) 231-9393
(406) 444-0169 (TTY)

Linda McCulloch
Superintendent

Grade 6 Math Performance/Achievement Descriptors

Advanced	Students at this level demonstrate a comprehensive and in-depth understanding of the following rigorous subject matter
•	• Employ sophisticated or efficient problem solving strategies to solve multi-step or complex problems involving the four operations of whole numbers, decimals, and fractions and clearly and elegantly communicate strategies using sophisticated mathematical language, symbols, and/or visual representation • Employ sophisticated or efficient problem-solving strategies to solve problems involving common multiples, percents, negative numbers and ratios • Use and apply strategies and procedures to solve multi-step algebraic problems • Locate position on a coordinate plane after a transformation • Solve complex measurement problems using formulas and conversions within the metric and standard system • Collect, organize, and display data using a variety of graphic representations. Read and interpret complex data representations using statistics • Select and use multiple problem solving strategies to determine all outcomes of simple and compound events and clearly communicate strategies
Proficient	Students at this level demonstrate a solid understanding of the following challenging subject matte
	• Employ appropriate problem solving strategies to solve single and multi-step problems involving the four operations of whole numbers, decimals, and fractions and clearly communicate strategies using appropriate mathematical language, symbols, and/or visual representation • Employ appropriate problem-solving strategies to solve problems involving common multiples, percents, negative numbers and ratios • Identify and use rules for numeric and geometric patterns • Use and apply strategies and procedures to solve single-step algebraic problems • Solve geometric problems using appropriate properties and formulas • Locate position on a coordinate plane • Solve measurement problems using formulas and conversions within the metric and standard system • Collect, organize, display data using a variety of graphic representations. Read and interpret data representations using statistics • Determine all outcomes of simple events and clearly communicate strategies
Nearing Proficiency	Students at this level demonstrate a partial understanding of the following subject matter
	• Employ appropriate problem solving strategies to solve single-step and/or straight computation problems involving the four operations of whole numbers, decimals, and fractions and may communicate strategies using limited mathematical language, symbols, and/or visual representation • Employ appropriate problem-solving strategies to solve problems involving percents, negative numbers and simple ratios • Use and apply strategies and procedures to solve simple algebraic problems • Solve some geometric problems using appropriate properties and formulas • Solve simple measurement problems using formulas and simple conversions within the metric and standard system • Collect, organize, display data using some graphic representations. Read and interpret data representations using some statistics • Determine the outcome of a simple event

Novice	Students at this level demonstrate a minimal understanding of the following subject matter
	• Employ appropriate problem solving strategies to solve single-step and/or straight computation problems involving the four operations of whole numbers, and simple decimal and fractions fraction problems and may communicate strategies using limited mathematical language, symbols, and/or visual representation • Read and identify numbers into the billions • Employ some appropriate problem-solving strategies to solve simple problems involving percents and negative numbers • Identify numeric and geometric patterns • Use and apply some strategies to solve simple algebraic problems • Solve some simple geometric problems using appropriate properties and formulas • Identify some transformations • Locate position on the first quadrant of a coordinate plane • Solve simple measurement problems sometimes using formulas and simple conversions within the standard system • Collect, organize, display, read, and interpret simple data representations • Judge the probability of a simple event as impossible, very likely, unlikely, or certain